GPS VEHICLE TRACKER

USER MANUAL

Preface

Thank you for purchasing the TK103 GPS vehicle tracker. This manual shows how to operate the device smoothly and correctly. Make sure to read this manual carefully before using this product. Please note that specification and information are subject to changes without prior notice in this manual. Any change will be integrated in the latest release. The manufacturer assumes no responsibility for any errors or omissions in this document.

Contents

◆Quick Using....3
◆GPS Vehicle Tracker Installation....3
1 Summary functions....4
2 Hardware Description....4
4 Specs....5
5 Usage....6
5.1 Installation SIM card....6
6. Set up....7
1. Initialization....7
2. Add authorized number....7
3. Delete authorized number....7
4. Change the Password....7
5. Resume the initial password....8
6. Enquiry Positioning....8
7. Control Oil....8
8. Control Circuit....8
9. Monitor mode....8
10 Movement alert....8
11. Overspeed alert....8
12. Geo-fence....9
13 . Restart the tracker.....9
14. Auto track....9
15. Set ACC open and close time interval....9
16. Set ACC open and close SMS notify....9
17. Set country time zone....10
18. Modes switch between “track” and “monitor”....10
19. Modes switch between “telephone” and “web”....10
20. Modify IP address and port....10
21. Set Device ID number....10
22. Set APN....10
23. Set GPRS user name and password....10
24. Set Web....11
7 Command list....11

◆Quick Using

1) Inset GSM card, connect GPS GSM antennas and external power supply.
2) Put GPS antenna outside, around 30s blue light will keep stable on and with red light flash at 2 seconds, means device can start normal working.

3）Make a call to device number or send SMS “google” to device number, it will reply a tracking message show location.

4）if need real time tracking on computer, please send 2 SMS commands connect to platform as below:

SMS 1: ip116.205.4.114port8169

SMS 2: apn123456+space+APN of operator

SMS 3: user+space+ APN user name+space+APN password（if no APN user name and prd, skip this）

SMS 4: number+latter 11 digits of device IMEI number(also can use device GSM card number)

5）login tracking platform to check real time location(please contact your supplier)

◆GPS Vehicle Tracker Installation

GPS tracker should be installed by technical professional of local service centre. Without permission, the user cann’t repair and move the tracker randomly. If users do, any unfortunated damage should be compensated by himself.

Installation steps (caution: the following installation should under no power, otherwise will be dangerous)

1. Install GPS and GSM antennas: GPS antenna can’t cover with metal. (necessary)

2 . Power supply line: The red wire connects 12V “+”;Black wire connects to 12V “-” (necessary)

2. Device light status:

Red represents GSM signal, blue represents GPS signal, when blue light stable lighting on and flash with red light at 2 seconds (red and blue is same light).

3. Wire for cutting off oil or circuit of the tracker(optional connect)

Relay white wire connects positive +; relay yellow wire connects device yellow wire; two green wires connect Oil pump or circuit two ends. Caution: Wrong connection of yellow wire will damage the tracker.

4. Emergency triggering alarm (optional connect)

The blue wire connects the positive of the alarm button, and the black wire connects the negative of the alarm button.

1 Summary functions

Working Based on existing GSM/GPRS network and GPS satellites, this product can locate and monitor any remote targets by SMS or GPRS.

1.1 Positioning and Tracking: Through the on-line Positioning Platform or the cell phone to locates at times, and get the working status. You can choose the Positioning Platform by yourself.
1.2 Triggering Emergency Alarm: When there is a emergency happened on the vehicle, you can put on the button and the installed unit will send out alarm to the authorized numbers.

1.3 Remote controlling oil and circuit: you can control the oil and circuit via the unit by SMS in anywhere and anytime.

1.4 Remote Monitoring: In anywhere and anytime, call the phone number in the unit, when it connects, you can monitor the sound around 5 meter.
1.5 Movement Alert: Send SMS to the unit to start the movement alert function. When the vehicle is moving, the unit will send the movement alert to all authorized numbers.

1.6 Overspeed Alert: Send SMS to the unit to start the movement alert function. When the vehicle is overspeed, the unit will send the overspeed alert to all authorized numbers.

1.7 Geo-fence: Set up a geo-fence for the unit to restrict its movements within a district. The unit will send the message to all authorized numbers when it breaches the district.

1.8 Resume the unit: send SMS to resume the default of unit.

1.9 Auto Track: You can set up auto track by SMS or on-line positioning platform.

1.10 Mileage statistics; ACC checking; cutting off power and alarm.

1.11 Compatible with the original anti-theft alarm: It will send SMS alarm after the original anti-theft alarm warning.

1.12 Modify the IP and Port of Communication Protocol for different on-line positioning platform

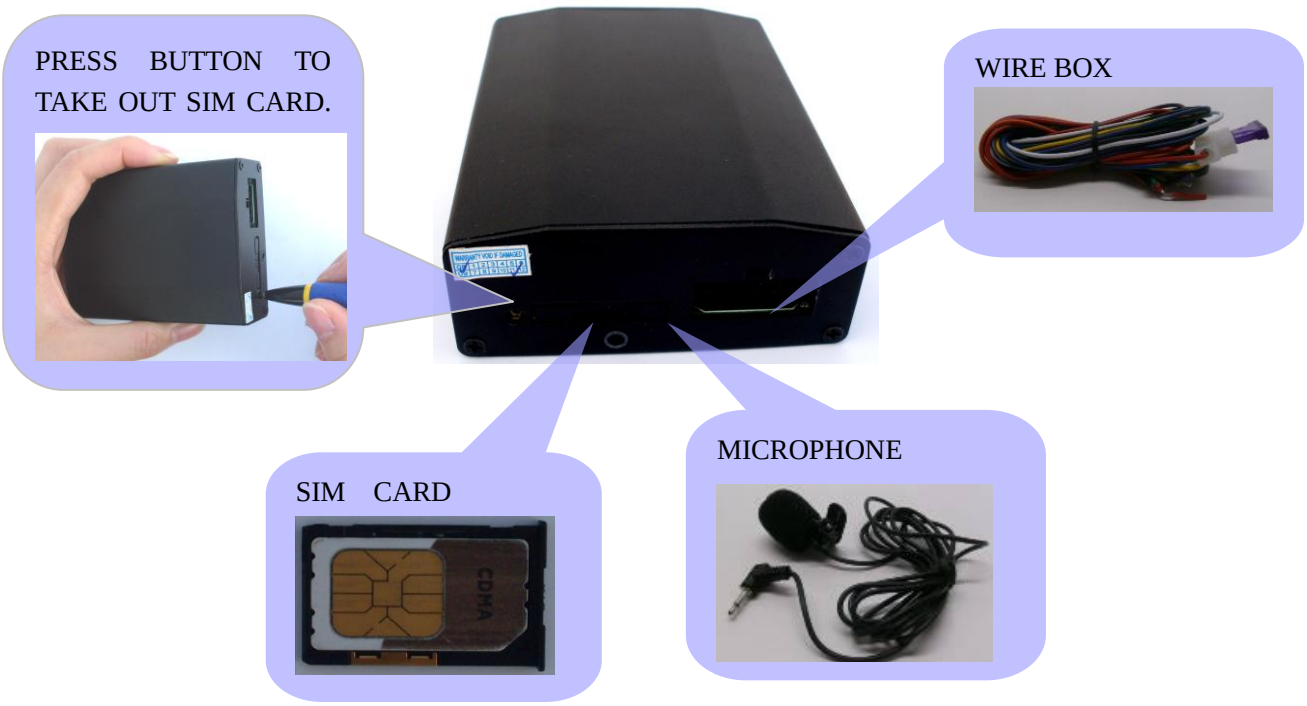
2 Hardware Description

2.1 Front face

2.2 Rear face

2.3 Side face

3.4 Bottom face



4 Specs.

Content	Specs.
Dim.	85mm x 63mm x 25mm
Weight	160g
Network	GSM/GPRS/GPS
Band	900/1800 Mhz or 850/900/1800/1900 Mhz
GPS chip	Ublox chip
GSM/GPRS module	Simcom840W
GPS sensitivity	-159dBm
GPS accuracy	5m
Time To First Fix	Cold status 45s Warm status 35s Hot status 1s
Work voltage	12V—36V
Battery	Chargeable changeable 3.7V 500mAh Li-ion battery
Storage Temp.	-40 ℃ to +85 ℃
Operation Temp.	-20 ℃ to +55 ℃
Humidity	5%--95% non-condensing

5 Usage

5.1 Installation SIM card

Put the card box into host as picture.

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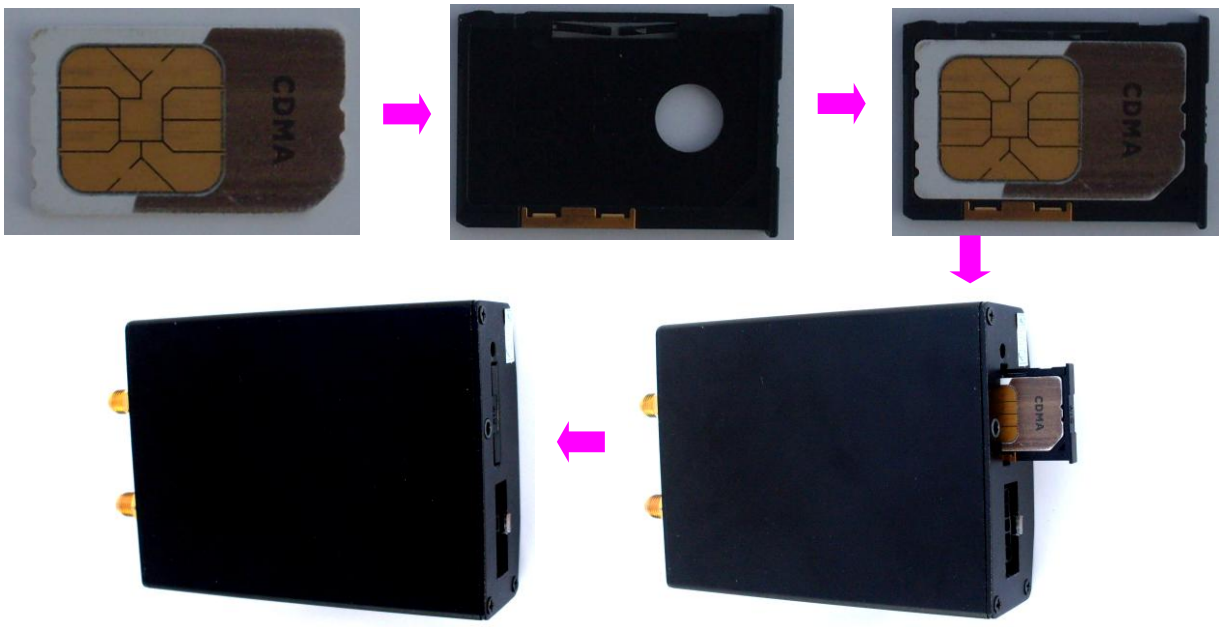
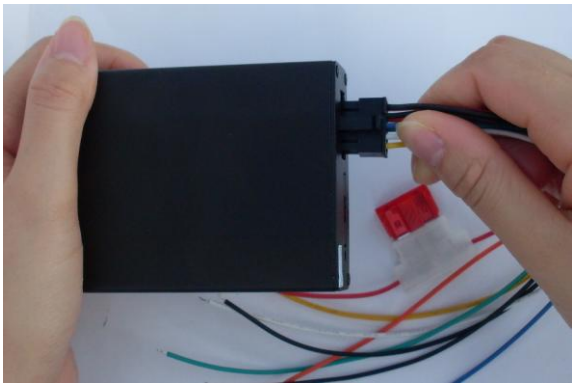
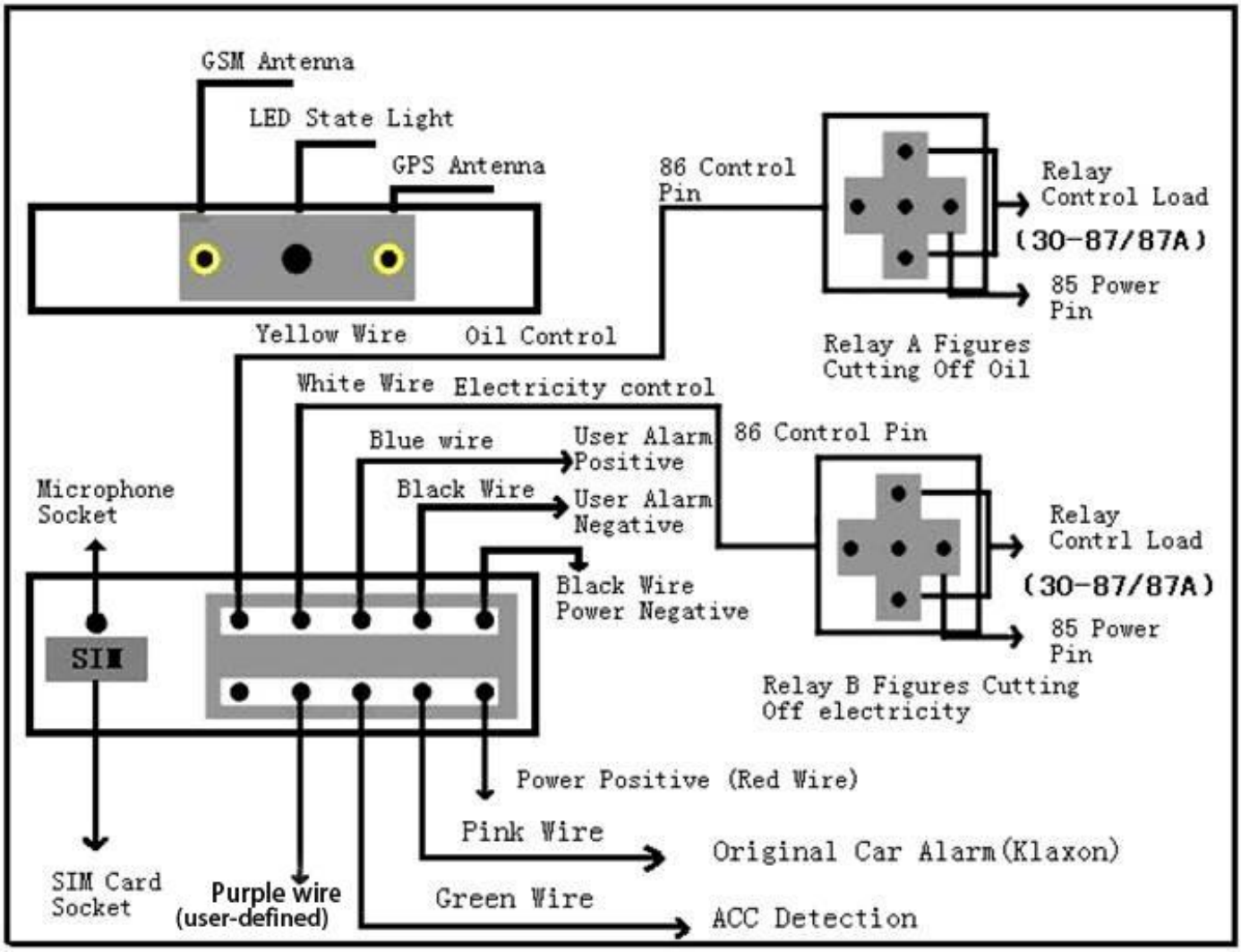


5.2 Install Wire Box



5.3 GPS Vehicle Tracker Installation



GPS Vehicle Tracker Installation Diagram

6. Set up

1. Initialization

Send "**begin+password**" in SMS to the unit, it will reply "begin ok" and initialize all the settings. (Default password: 123456)

2. Add authorized number

Send SMS "**admin123456 13612345678".** "admin" as instruction, "123456" as password, "13612345678" as authorized number. It will reply "admin ok!".

3. Delete authorized number

Send SMS **"noadmin123456 13612345678".** "noadmin" as instruction, "123456" as password, "13612345678" as deleted number. It will reply "noadmin ok!".

4. Change the Password

Send SMS: "**password + old password + space + new password"** to change the password.

For example: Send SMS "Password123456 138138". "password" as instruction, "123456"as old password, "138138" as new password. Password must be six digits. Tracker's initial password is 123456.

5. Resume the initial password

If you forget your password, you can resume the initial password 123456.

Send "**resumepassword**" to the tracker, the tracker will resume the initial password. If there is no authorized numbers, all numbers can resume initial password. If there is already authorized numbers, only the authorized numbers can resume initial password.

6. Enquiry Positioning

Send SMS "**position" or "google"** to the unit, then the unit will send SMS with real-time longitude and latitude to the cell phone.

7. Control Oil

Send SMS "**stopoil+password"** to control oil. For example send SMS: stopoil123456

"stopoil" as instruction, "123456"as password.

To supply the oil again, send SMS **"supplyoil+password"** to the unit. For example, send SMS "Supplyoil123456" to the tracker. "Supplyoil" as instruction, "123456" as the password.

8. Control Circuit

Send SMS "**stopelec+password"** to control circuit. For example send SMS: **"**stopelec123456".

"stopoil" as instructions, "123456" as the password.

To supply the circuit again, send SMS **"supplyelec+password"** to the unit. For example, send SMS "Supplyelec123456" to the tracker. "Supplyelec" as instruction, "123456" as password.

9. Monitor mode

There are three modes for monitor.

1) All Monitor Mode: Send SMS "**AllMonitor**" to the unit, the unit will return to this mode. In this mode, any number can monitor this unit.
2) Restrict Monitor Mode: Send SMS "**RestrictMonitor**" to the unit, the unit will return to this mode. In this mode, authorized number can monitor this unit.
3) Close Monitor Mode: Send SMS "**CloseMonitor**" to the unit, the unit will return to this mode. In this mode, all numbers can not monitor this unit.

10 Movement alert

Set up: The user can send SMS **"Move + password"** to the unit, then the unit will reply **"**move ok!" .In case of such a movement, it will send SMS "Move" along with a Geo-info to the number.

For example, send SMS "Move123456" to the unit. "Move" as instructions, "123456"as password.

Cancel: Send SMS "**nomove+password**" to deactivate the movement alert.

11. Overspeed alert

Set up: Send SMS **“speed+password+space+080”** to the unit (support the speed is 80km/h).

For example, send SMS “speed123456 080”. "speed" as instruction, "80" as limit speed, “123456”as password.

Cancel: Send SMS “**nospeed+password**” to deactivate the overspeed alert.

12. Geo-fence

1) Set up a geo-fence for the unit to restrict its movements within a district. The unit will send the message to the authorized numbers when it breaches the district.

2) Set up:the user can Send SMS “**stockade+ password + space + MinLatitude, MinLongitude; MaxLatitude, MaxLongitude**” to unit to set the restricted district. In case of breach, it will send SMS “stockade! + geo-info” to the authorized number.

3) For example send SMS “stockade123456 22.548123, 114.081234; 22.549123, 114.082234” to the unit.

Remark: The first latitude & longitude is coordinate of min of the Geo-fence, while the second latitude & longitude is the coordinate of the max. It will alarm one time in each setting.

4) Cancel: Send SMS “**nostockade + password**” to deactivate this function.

This function will be out of effect after the unit moves outside the district.

13 . Restart the tracker.

Send SMS **“reboot+password”** to the tracker. For example“ reboot123456”.The tracker will be restarted. It will reply “system will reboot...”.

14. Auto track

Send SMS “**at30sum5”** to the unit, it will reply “Auto track set ok.” and report a Geo-info at 30 seconds intervals for 5 times: The max intervals is 65535 seconds. You can send **“at30sum0”** for heaps of times.

Send“ **noat123456**” to the tracker, it will reply “Cancel auto track ok.”. And the tracker will stop send messages.

15. Set ACC open and close time interval

Device can set time interval of send data when ACC open or close.

Send SMS “**accon+time interval”** to the unit, for example “accon 30”stand for when ACC open send data for every 30 seconds.

Send SMS “**accoff+time interval”** to the unit, for example “accon 60”stand for when ACC close send data for every 60 seconds.

16. Set ACC open and close SMS notify

Device can set SMS alarm when ACC open or close status.

Send SMS “**accnotify 1”** to the unit, for example “accnotify 1”stand for when device detects ACC open and close status, device will SMS to authorized number.

Send SMS “**accnotify 0”** to the unit, for example “accnotify 0”stand for close this function.

17. Set country time zone

In the default, tracker reply position SMS time is UTC time. After you can set zone time, tracker will reply the time of your country. The format is "**zone + password + space + time zone value**". For example, "zone123456 8" is set east 8 time zone. Time zone value ranges from -12 to 12. One time zone stands for one hour. "zone123456 -8" is set west 8 time zone. After send SMS, tracker will reply "Set Time Zone OK."

18. Modes switch between "track" and "monitor"

The default mode is "track". Send SMS "**monitor + password**" to the unit, and it will reply "monitor ok!" and switch to "monitor" mode. For example send SMS: "monitor123456". In this mode, you can monitor tracker by call tracker card number.

Send SMS "**tracker + password**" to the unit, it will reply "tracker ok!" and restore to "track" mode. For example send SMS "tracker123456". In this mode, you can get position SMS by call tracker.

19. Modes switch between "telephone" and "web"

Set up: Send SMS "**web + password**" to device. For example, the password is 123456. Send SMS "web123456" to the device, the device will reply SMS "set web ok". After this, the tracker will report the GPS data to IP address.

If you want to send GPS data to telephone, you can send SMS "**telephone + password**" to device, the device will reply "set telephone ok". And then, the device will send GPS data to your telephone by SMS. (The default is sending the GPS data to the telephone)

20. Modify IP address and port

The IP address and port of the tracker can be modified and transferred data to other platform. Send SMS " **IP + ip address + PORT + port value"** to the unit. If the platform's IP address and port is 116.205.4.114 and 8169, send SMS "ip116.205.4.114port8169" to the tracker. It will reply "set IP address and PORT ok.". After this, device will send GPS data to this IP and Port.

21. Set Device ID number

This command uses only for GPRS communication. Default device ID is the same. In order to identify device for platform, must set device ID for every device. Send SMS "**number + tracker ID number"** to the tracker. For example "number13612345678".

22. Set APN

In order to send GPS data to IP address, you still must set mobile network Access Point Name (APN). If you don't know the APN, you can consult local network service supplier. The format of set APN is **"APN + password +space + apn value"**. For example you send SMS "apn123456 cmnet" to the device. The device will reply SMS "Set APN ok." .

23. Set GPRS user name and password

Some country must be set GPRS user name and password for GPRS communication. The format of set GPRS user name and password is "**user + space + GPRS user name + space + GPRS password**". For example, "user name 123456", "user" is command, "name" is GPRS user name, "123456" is GPRS password. After send SMS, tracker will reply "Set GPRS User and Password ok . " .

24. Set Web

In order to see your website in each replying Geo SMS, for example your website is www.webs***.com, then send "**home123456 www.webs***.com**".Then it will reply "set home ok", when you want to cancel it, just send "**nohome123456**", it will reply SMS "cancel home ok".

7 Command list

No.	Function	SMS	Reply
1	Initialization	begin123456	begin ok
2	Admin number	admin123456 13800000000	admin ok
3	Delete number	noadmin123456 13800000000	noadmin ok
4	Change password	password123456 888888	change password ok
5	Resume password	resumepassword	resume password ok
6	Control oil	stopoil123456	stop oil ok
		supplyoil123456	supply oil ok
7	Control circuit	stopcircuit123456	Stop circuit ok
		supplycircuit123456	supply circuit ok
8	Set monitor mode	allmonitor	Set all monitor ok
		restrictmonitor	Set restrict monitor ok
		closemonitor	Set close monitor ok
9	Movement alert	move123456	Move ok
		nomove123456	Cancel move ok
10	Overspeed alert	speed123456 080	Speed ok
		nospeed123456	Cancel speed ok
11	Geo-fence alert	stockade123456 coordinate;coordinate	Set stockade ok
		nostockade123456	Cancel stockade ok
12	Restart tracker	reboot123456	System will reboot
13	Enquiry position	position or google	Geo ino
14	Auto track	at30sum5	Auto track ok
		noat123456	Cancel auto track ok
15	Switch between monitor and tracker	monitor123456	Monitor ok
		tracker123456	Tracker ok
16	Set IP and port	ip116.205.4.114port7887	Set ip address and port ok
17	Set device ID number	number13500001111	Set number ok
18	Set APN	apn123456 cmnet	
19	Set APN user name and APN password	user apnusername apnpassword	Set GPRS User and Password ok
20	Set time zone	zone123456 8	Set time zone ok
21	Set ACC on/off time interval	accon 30	Set ACC ON interval ok
		accoff 60	Set ACC OFF interval ok
22	Set ACC on/off SMS alarm	accnotify 1	Set ACC notify OK
		accnotify 0	Set ACC notify OK